GRID DEPLOYMENT OFFICE

FACT SHEET

GRID RESILIENCE AND INNOVATION PARTNERSHIPS PROGRAM

Established by the Bipartisan Infrastructure Law, the U.S Department of Energy's Grid Deployment Office is administering a historic $10.5 billion investment via the Grid Resilience and Innovation Partnerships (GRIP) program to enhance grid flexibility, improve the resilience of the power system against growing threats of extreme weather and climate change, and ensure American communities have access to affordable, reliable, clean electricity when and where they need it.

SEASONAL SOLAR CONGESTION MANAGEMENT

Pecan Street Inc.'s goal for the Seasonal Solar Congestion Management (SEASCOM) system project is to accelerate Delaware's clean energy transition by meeting customer demand to install rooftop solar. The project aims to accomplish this goal by eliminating seasonal solar congestion as a primary barrier that currently prevents approval of new residential and small commercial solar interconnection requests. The SEASCOM solution bypasses the need to wait for lengthy and expensive upgrades to distribution and transmission system infrastructure and instead leverages the communications capacity of smart inverters that are already installed as an integral part of every solar system.

Anticipated Outcomes and Benefits

Despite growing customer interest in rooftop solar, there are many locations across the cooperative's service territory where customers can no longer install solar generation systems due to a lack of capacity on power lines . The project team will pursue three outcomes in developing and deploying the SEASCOM system to address these challenges and deliver benefits to customers:

- Simple, cost-effective solution to manage seasonal solar congestion. SEASCOM deployment will bypass the need to wait for potentially lengthy and expensive upgrades to distribution and transmission system infrastructure by using a low-cost, commercially available energy monitoring and communications device to leverage the communications capacity of smart inverters that are already installed in the system.
- More residential solar installations reduce reliance on coal-powered generation to ensure reliability during summer peak demand. There are approximately 2,750 customers with solar totaling 28.2 MW of installed capacity, compared to a system peak of 443.8 MW. Opening up opportunities for more residential solar will help to increase total system capacity.
- Strategies developed to enhance grid support capabilities as solar penetration increases: Successful implementation of the SEASCOM solution will lead to higher distribution-level solar penetration.
- Additional anticipated benefits and outcomes include:
- New solar arrays for 1,500 homes in the project service area, 150 of which reside within **disadvantaged communities** (DACs).
- Address currently restricted zones that cannot connect any new solar generation and open up all areas for new interconnections.
- Decrease the energy burden of DACs and utility costs overall by increasing solar generation.
- Improve air quality by decreasing the use of fossil fuel plants needed to meet energy demands.
- Increase workforce development opportunities by hosting workforce promotional events and job fairs and creating and distributing learning materials, with an emphasis on underserved communities.

PROJECT DETAILS

- **Project:** Seasonal Solar Congestion Management (SEASCOM)
- **Applicant/Selectee:** Pecan Street Inc.
- **GRIP Program:** Smart Grid Grants (Bipartisan Infrastructure Law, Section 40107)
- **Federal cost share:** $7,989,987
- **Recipient cost share:** $7,989,987
- **Project Location:** Delaware
- **Project type:** Renewable Energy Enablement

HELPFUL LINKS

- Grid Resilience and Innovation Partnerships Program
- About the Grid Deployment Office

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